

# RESPONSE

## DETAILED ACTION

### *Status of Action*

#### 1. CLAIMS.

- i. Claims 1 to 10 are Currently Amended.
- ii. Claims 11 to 20 are New.

The above-mentioned changes are further explained below. The portions of claim that have been deleted from originally submitted claims are shown in double strikethrough. The terms that have been added in originally submitted claims are shown in ***bold italics***.

1. (Currently Amended). A UV absorbing ~~and free radical neutralizing composition~~ ***agent*** comprising; (i) ~~At least one divalent or polyvalent~~ ***a zinc zeolite, or (ii) a titanium metal*** zeolite. ~~, and (ii) A cosmetically or pharmaceutically acceptable delivery system or a carrier base composition~~ ***, or (iii) a combination thereof.***
2. (Currently Amended). ~~A composition~~ ***An agent*** according to claim 1, wherein ~~divalent or polyvalent metal~~ ***said agent*** zeolite is ~~selected from zinc zeolite, titanium zeolite, or a combination thereof.~~
3. (Currently Amended). ~~A composition~~ ***An agent*** according to claim 1, wherein ~~divalent or polyvalent~~ ***transition*** metal zeolite ~~is made by an in-situ process from a metal derivative and an aluminosilicate zeolite composition~~ ***a carrier base is included.***
4. (Currently Amended). ~~A composition~~ ***An agent*** according to claim 1, wherein ***said*** zeolite ~~composition is selected from a~~

~~group of aluminosilicates that~~ can be either in hydrated or anhydrous forms.

5. (Currently Amended). ~~A composition~~ **An agent** according to claim 1, wherein ~~metal~~ **said** zeolite ~~composition~~ is a topical sunscreen ~~composition~~.
6. (Currently Amended). ~~A composition~~ **An agent** according to claim 1, wherein **said** ~~metal~~ zeolite ~~composition~~ is a **topical** UV absorber ~~composition~~ **agent**.
7. (Currently Amended). ~~A composition~~ **An agent** according to claim 1, wherein **said** ~~metal~~ zeolite ~~composition~~ is a **topical** Free radical neutralizing ~~composition~~ **agent**.
8. (Currently Amended). ~~A composition~~ **An agent** according to claim ~~4~~ **3**, wherein a ~~cosmetically acceptable delivery system or~~ a carrier base is selected in the form of a lotion, cream, gel, spray, thin liquid, body splash, mask, serum, solid cosmetic stick, lip balm, shampoo, liquid soap, bar soap, bath oil, paste, salve, powder, collodion, impregnated patch, impregnated strip, skin surface implant, **and** diaper, ~~and any other such~~ ~~cosmetically or pharmaceutically acceptable topical delivery forms~~.
9. (Currently Amended). ~~The compositions~~ **An agent** according to claim ~~4~~ **3**, wherein ~~the cosmetically or pharmaceutically acceptable delivery system~~ **carrier base** is traditional water and oil emulsions, suspensions, colloids, microemulsions, clear solutions, suspensions of nanoparticles, emulsions of nanoparticles, powders, or anhydrous compositions.

10. (Currently Amended). ~~A composition~~ **An agent** according to claim 1 ~~3~~, wherein ~~cosmetically or pharmaceutically acceptable delivery system or carrier base optionally includes additional skin beneficial ingredients selected from skin cleansers, surfactants (cationic, anionic, non-ionic, amphoteric, and zwitterionic), skin and hair conditioning agents, vitamins, hormones, minerals, plant extracts, anti-inflammatory agents, collagen and elastin synthesis boosters, UVA/UVB sunscreens, concentrates of plant extracts, emollients, moisturizers, skin protectants, humectants, silicones, skin soothing ingredients, antimicrobial agents, antifungal agents, treatment of skin infections and lesions, blood microcirculation improvement, skin redness reduction benefits, additional moisture absorbents, analgesics, skin penetration enhancers, solubilizers, moisturizers, emollients, anesthetics, colorants, perfumes, preservatives, seeds, broken seed nut shells, silica, clays, beads, luffa particles, polyethylene balls, mica, pH adjusters, processing aids, and combinations thereof~~ **is an emulsion.**

11. (New). A composition according to claim 3, wherein carrier base includes additional UV absorbers selected from Kaempferia galanga extract, Benzophenone-3, Benzophenone-4, Ethylhexyl Methoxycinnamate, Homosalate, Ethylhexyl salicylate, Octocrylene, Menthyl anthranilate, Avobenzone, Lawsone, Sulisobenzene, Trolamine salicylate, Lawsone, Glyceryl aminobenzoate, Cinoxate, PABA, or combinations thereof.

12. (New). A composition according to claim 11, wherein said additional UV absorber is Benzophenone-3.

- 13.**(New). A composition according to claim 11, wherein UV absorbancy of said additional UV absorber is synergistically increased by said agent in claim 3.
- 14.**(New). A composition according to claim 13, wherein said agent in claim 3 is zinc zeolite.
- 15.**(New). A composition according to claim 13, wherein said agent in claim 3 is titanium zeolite.
- 16.**(New). A method of boosting topical UV protection of sunscreen agents, wherein said method comprises; mixing of (i) zinc zeolite, or (ii) titanium zeolite, or (iii) a combination thereof, with (iv) a suitable topical base, and (V) application of said mixture on skin in an amount sufficient to cause desired UV protection.
- 17.**(New). A method of boosting topical UV protection of sunscreen agents according to claim 16, wherein said topical base is an emulsion.
- 18.**(New). A method of boosting topical UV protection of sunscreen agents according to claim 16, wherein said sunscreen agent is Benzophenone-3.
- 19.**(New). A method of boosting topical UV protection of sunscreen agents according to claim 16, wherein said method includes zinc zeolite.

**20. (New).** A method of boosting topical UV protection of sunscreen agents according to claim 16, wherein said method includes titanium zeolite.

A numbered list of all claims-related actions is submitted separately in an amendment under "Claims" in the proper font size and style.

### ***Notes to the Applicant***

The numbering has been redone according to the Examiner comment. A re-numbered list of all claims is submitted separately in an amendment under "Claims" in the proper font size and style.

### ***Claims Objections***

Text font and size and style have been corrected in the amended claims. A complete list of all claims is submitted separately in an amendment under "Claims" in the proper font size and style.

### ***Double Patenting***

There is no intention or evidence of double patenting.

Patent Application 10/605,191 is now abandoned.

Patent Application 11/760,466 (filed 06/08/2007), which is a continuation-in-part of (now abandoned) patent Application 10/605,191, discloses diaper dermatitis treatment with certain divalent metal zeolites including zinc zeolite. Diaper dermatitis is a human disease, whereas the subject matter of the present invention principally relates to absorption of UV radiation and free radicals, which are all from non-human, extraneous origin. Diaper dermatitis is of biological origin, whereas UV and free radicals are of photochemical and chemical origin, respectively.

### ***Claim Rejections – 35 USC §112 second paragraph***

Claim 10 has now been Currently Amended to comply with the Examiner objection. A complete list of all claims is submitted separately in an amendment under "Claims".

## ***Claim Rejections – 35 USC §102***

Strianse et al. (US 4,362,715) invention discloses the following:

“A combination of an acidic functional polymer and zeolite and/or amorphous alumino silicate provides a gel suitable as a cosmetic vehicle plus supplying functionality as well. The components combine easily to provide a creamy gel that is compounded with other ingredients to provide the complete cosmetic composition. The zeolite or amorphous alumino silicate is present in a sufficient quantity to provide functionality as well as the desired rheology. The combination can be used to compound astringent creams or lotions, make-up bases, facial masks, deodorant compositions, antiperspirants, anti-acne compositions, wrinkle smoothers or erasers, pore minimizers, and body lotions. An especially useful zeolite or amorphous alumino silicate is a material that contains aluminum as the cation”.

The underlined items above clearly establish the utility of zeolite as a viscosity builder. There is no mention of said zeolite, which is not a zinc zeolite or titanium zeolite, as a UV absorbing or free radical neutralizing agent. Additionally, the above compositions must also include an acidic polymer. Also, these compositions must also contain aluminum as the cation, whereas the present invention includes only zinc or titanium as the cations of choice.

Additionally, the present invention does not require a cosmetic vehicle, which Striansee invention does require.

Strianse et al. invention is not even remotely related to surprising and unexpected nature of the present invention.

With respect to Araya (US Patent Application 2003/0148876), which discloses the following:

“A method of using a zeolite composition comprises forming a mixture of (a) a crystalline aluminosilicate and (b) a salt of a second metal selected from the group consisting of Group III metals, metallic elements of Group IV, magnesium, titanium, chromium, iron, nickel, copper, zinc, zirconium and silver, said salt of a second metal being present in an amount which is sufficient to replace from about 2.0 to about 40 per cent of a first metal moiety, and using said mixture in an aqueous composition at a pH in the range 4 to 10. A further aspect of the invention is a powder comprising a mixture of (a) a crystalline aluminosilicate and (b) a salt of a second metal selected from the group consisting of Group III

metals, metallic elements of Group IV, magnesium, titanium, chromium, iron, nickel, copper, zinc, zirconium and silver, said salt of a second metal being present in an amount which is sufficient to replace from about 2.0 to about 40 per cent of a first metal moiety. Methods according to the invention include paper making, paint preparation, dental applications, use of detergents and adsorption and catalytic applications".

The items underlined above clearly establish that Araya invention is a method that is useful for certain surface modification applications. However, Araya method does not disclose any UV absorbing or free radical neutralizing zinc zeolite or titanium zeolite. Moreover, Araya invention must also contain water, and is limited by a pH range of 4 to 10. Araya invention also must include a crystalline aluminosilicate.

Araya invention is thus not even remotely related to surprising and unexpected nature of the present invention.

### ***Notes to the Applicant***

Both Strianse et al. and Araya inventions require a cosmetic base or aqueous compositions.

Strianse et al., for example in claims 1 and 2, require the following:

"1. A cosmetic vehicle comprising a carboxyvinyl polymer with active carboxyl groups and a zeolite having the formula:

wherein x and y are integers greater than 6, the molar ratio of x to y is 0.1 to 1.1, z varies from 8 to 250 and M is a metal of valence n, said polymer-zeolite composition being a creamy gel with a pseudoplastic viscosity and having a pH of 5.5 to 8.5.

2. The cosmetic vehicle of claim 1 consisting of 0.1 to 10% by weight of the acidic polymer, 5 to 25% by weight of the zeolite and the balance to 100% by weight of water.

Strianse et al. invention requires both a cosmetic vehicle, which contains a substantial quantity of an acidic polymer, and a substantial quantity of water. The present invention does not require any of these ingredients or vehicles. A pH range of 5.5 to 8.5 also limits Strianse et al. invention.

Now, relative to Araya; claim 1, for example, states the following: